

Appl. No. 10/022,444
Amdt. dated December 27, 2004
Reply to Office action of September 29, 2004

Amendments to the Claims:

No changes have been made.

Listing of Claims:

1. (original) In a handheld information handling apparatus having a connector interface
5 for swappable connection to appendant devices of two kinds, said appendant device
of the first kind when connected thereto communicating with said information
handling apparatus using a first transmission standard, and said appendant device of
the second kind when connected thereto communicating with said information
handling apparatus using a second transmission standard, a method of signal
10 transmission between said information handling apparatus and said appendant
devices, comprising the steps of: representing a first set of signals generated
according to said first transmission standard by a reduced set of signals, wherein said
reduced set of signals is transmitted over said connector interface while said
information handling apparatus is communicating with said appendant device of the
15 first kind; transmitting a second set of signals according to said second transmission
standard over said connector interface while said information handling apparatus is
communicating with said appendant device of the second kind.
2. (original) The method according to claim 1, further comprising the step of: generating
a signal whereby is determined which set of signals out of said first set of signals
20 according to said first transmission standard and said second set of signals according
to said second transmission standard is made transmittable over said connector
interface.
3. (original) The method according to claim 1, further comprising the step of: obtaining
information of the connection of said connector interface to one of said appendant
25 devices whereby is determined which set of signals out of said first set of signals
according to said first transmission standard and said second set of signals according

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to said second transmission standard is made transmittable over said connector interface.

4. (original) The method according to claim 1, wherein said first transmission standard is parallel and said second transmission standard is serial.
- 5 5. (original) A handheld information handling system for performing a plurality of functions, comprising: a display component for displaying information thereon; a set of input components for operating the information handling system; a circuitry for processing and transferring a first number of parallel signals generated in accordance with a first transmission standard while one of said functions is being performed,
10 wherein said first number of parallel signals are generated at a first clock rate; a first interface for external connection comprising a plurality of pins over which a second number of serial signals can be transmitted, wherein said second number is less than said first number; a first parallel-serial converter coupling said circuitry and said first interface and thereby allowing said first number of parallel signals transferred by
15 said circuitry and said second number of serial signals transmitted over said first interface to be mutually convertible.
6. (original) The information handling system according to claim 5, wherein said first parallel-serial converter functions at a second clock rate, said second clock rate being a multiple of said first clock rate.
- 20 7. (original) The information handling system according to claim 6, wherein said second clock rate is four times faster than said first clock rate.
8. (original) The information handling system according to claim 5, further comprising a switch unit having a first port coupled to said first parallel-serial converter over which said second number of serial signals is transmitted, a second port coupled to
25 said circuitry over which a third number of serial signals generated in accordance

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with a second transmission standard is transmitted, and a third port coupled to said first interface over which said second number of serial signals and said third number of serial signals are switchably transmitted.

- 5 9. (original) The information handling system according to claim 5, further comprising a first appendant device removably connected to said first interface, comprising: a second interface comprising a plurality of pins removably connectable to said first interface over which said second number of serial signals can be transmitted; a second parallel-serial converter coupling said second interface and allowing said first number of parallel signals and said second number of serial signals transmitted over
- 10 said second interface to be mutually convertible, wherein said second parallel-serial converter functions substantially at said second clock rate.
- 15 10. (original) The information handling system according to claim 9, wherein said first appendant device further comprises a functional module coupled to said second parallel-serial converter between which said first number of parallel signals generated while one of said functions is being performed are exchanged.
- 20 11. (original) The information handling system according to claim 10, wherein said functional module is in the form of an expansion module removably connected into said appendant device.
- 25 12. (original) An information handling system comprising: a handheld device operable independently and having a first connector for external connection, wherein said handheld device functions in accordance with a first protocol and a second protocol; a first appendant device for said handheld device having a second connector for connecting to said first connector, wherein said first appendant device cooperates with said handheld device according to said first protocol inasmuch as said second

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connector is connected to said first connector; a second appendant device for said handheld device having a third connector for connecting to said first connector, wherein said second appendant device cooperates with said handheld device according to said second protocol inasmuch as said third connector is connected to said first connector; wherein: said first connector has connector pins whose number is less than the number specified in said first protocol for successful signal transmission between said handheld device and said first appendant device.

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13. (original) The information handling system according to claim 12, further comprising an expansion module for performing a function cooperatively with said handheld device, wherein said expansion module performs said function according to said first protocol inasmuch as said expansion module is connected to said first appendant device and said second connector is connected to said first connector.
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14. (original) The information handling system according to claim 12, further comprising a computer for performing a function cooperatively with said handheld device, wherein said computer performs said function according to said second protocol inasmuch as said computer is connected to said second appendant device and said third connector is connected to said first connector.
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15. (original) The information handling system according to claim 12, wherein said first protocol is PCMCIA.
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16. (original) The information handling system according to claim 12, wherein said first protocol is COMPACT FLASH.
17. (original) The information handling system according to claim 12, wherein said second protocol is RS-232.

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18. (original) The information handling system according to claim 12, wherein said handheld device further comprising circuitry for determining according to which of said first protocol and said second protocol that signals are transmitted over said first connector.
- 5 19. (original) The information handling system according to claim 12, further comprising an apparatus for obtaining information about whether one of said first appendant device and said second appendant device is connected to said handheld device.
- 10 20. (original) The information handling system according to claim 19, wherein said apparatus is a connector pin of said first connector.